

# MASSACHUSETTS PLOUGHMAN



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MASSACHUSETTS PLOUGHMAN  
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All persons sending contributions to THE PLOUGHMAN, or to any newspaper for publication, are requested to sign their names, and to do so in ink, as a guarantee of good faith, otherwise they will be consigned to the waste-basket. All matter intended for publication must be written on one side only, with ink, and upon but one side.

Correspondence from particular farmers giving the results of their experience is solicited. Letters should be signed with the writer's real name, in full, which will be printed, not, as the writer may desire.

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## AGRICULTURAL.

Avoid the hard-milking cow. She will either be abused by impatient milkers, or only partly milked by careless ones.

The ice harvest will soon be ready. A small farm ice house can be easily filled for \$1 per ton, and the larger ones very much more cheaply in proportion.

To milk a cow too long before calving is weakening for the cow and the calf. Cows should go dry about six weeks. This is a fair average rule, but may be varied according to the individual cow.

With a good grain ration and plenty of corn stalks, cows can get along without much hay. Some western dairymen do not feed any hay. Stalks are cut fine, mixed with the grain and each feeding sprinkled with warm water.

The right start is the essential for profitable dairying. Begin with good cows and special dairy breeds. Give them good surroundings, with stables, and facilities for feeding and watering which enables the work to be done with least expense. Study the feeding question and learn to get the most for your money.

We are so used to thinking of the soil as mere mineral matter that it comes quite as a shock to find this is a mistake. As a matter of fact the layer of soft mould which clothes the ground in all cultivable districts, and from which vegetation springs, is actually in great part a living layer of tiny plants and animals. Interlacing threads of moulds and fungi, worms, and grubs, creeping insects, tiny root parasites, decaying leaves, and the million of bacteria which spring from them—all these are mixed and mingled together for many inches down below our feet in a confused mass of life. Germs of all sorts swarm in countless millions. Indeed, all the plants that grow, and life that exists, on the face of the earth owe their being to the fact that the ground is alive. Take a shovel of the finest soil in the world and sterilize it—that is, beat it till all the life in it is destroyed—and then plant seeds in it. No amount of care or watering will make those seeds grow. Their life depends on the life in the soil around them.—EX.

## A Connecticut Soiling System.

Here is a succession of forage crops for the soiling system as practised by a successful farmer in Connecticut. First, a patch of alfalfa, which is ready to cut in May and can be cut three or four times in a season. Next, oats, which are cut in July, several sowings being made. Third, corn fodder, which is ready in August and later months. The later cuttings of alfalfa fill in the gaps. In winter he feeds cabbages, beets and turnips.

## One Hundred Hints on Dairying

BY THE LATE COL. T. D. CURTIS.

PART V.

CHEESE MAKING.

85. Cut early, as soon as the curd will break clean across the finger, and while it is yet tender and will part readily before the knife, without showing signs of toughness. More white whey and waste is made by cutting too late than by cutting too early. Once begun, finish the cutting as soon as possible, and cut as fine as dent corn. The aim is to facilitate the separation of the whey from the curd, and nothing is gained, but something lost by every moment's delay. I derive no advantage from using the horizontal knife, and deem it an unnecessary expense.

86. If the milk is very sweet there is no objection to a little d lay here, while with the other hand gently removing the curd where it adheres to the sides and ends of the vat or to the bottom. Then start the heat and gently raise it at the rate of about one degree in five minutes, to 98 degrees or blood heat. Have a care not to go much above 100 degrees, as at a temperature much above or below blood heat the action of the rennet is slower. Milk digested in the stomach of a calf, however, goes sometimes as high as 104 degrees.

87. Gently stir the curd with a rake, a hay rake with the handle and head shortened, is as good as any, from the time the temperature begins to rise until it stops rising. After this, occasional stirring is sufficient. Never stir with the hands. It is both laborious and uncleanly with the perspiration exuding at every pore. A careful man with a rake will do no harm, while a careless one with his hands may be squeezing handfuls of soft curd into impalpable atoms. When he uses a rake it is apparent what he is doing.

88. Keep the temperature at 98 degrees until the curd is sufficiently firm and elastic—a point which must be learned by experience, and which must be varied in different localities and under different conditions. A successful cheesemaker in one factory may fail in another; but if he has quick observation and good judgment, he may soon be able to hit the exact point. He may have to vary with the season.

89. Before any acid appears, run off the whey to an amount just sufficient to float the curd. At the first sign of acid, while the whey is yet sweet, draw it off, raise one end of the vat, poke the curd away from the lower end, open it in the middle and pile it along the sides of the vat, to lie and drain until the milk sugar turns to lactic acid. With a dull-pointed knife, frequently cut the curd into strips easy to handle, and bring the bottom curd to the top, so as to give a more equal exposure to the air and keep the temperature approximately even. A strip of sheeting, nailed at short intervals to strips of wood a little longer than the vat is wide, is a good thing to spread over the vat while it is thus standing, and it is also useful just after the milk begins to thicken when set, to prevent escape of heat.

90. In this way curd may lie almost any length of time without injury. The longer it lies, the more it will hasten the curding process. It should not be put to press until the acid is quite sharp, showing that the sugar has nearly all turned to lactic acid, and danger from this kind of fermentation is over. If put to press sooner the cheese is liable to swell and get out of shape. This method makes a softer and more buttery cheese than when the whey is altered to take on acid in the whey; but, if properly cured, it is firm enough for shipping purposes.

91. Souring curd in the whey is often a risky and disastrous business. If the acid goes too far, it cuts the fine fats and dissolves and washes out the phosphate, which are necessary to digestion and nutrition; and thus the cheese is rendered both indigestible and inutritious. It makes a hard cheese, easy to handle, and makes a sour, leaky cheese, good for nothing.

92. When the curd is ready for the

press grind it, salt it, at the rate of about one-half pound to 1,000 pounds of milk, cool to 80 degrees, and put to press. Tighten the screws of the press slowly at first, gradually approaching full pressure, and let the cheese remain in the hoops as nearly 24 hours as possible.

93. In many small factories there is no curd milk. In such cases, as soon as the curd is drawn, the salt may be added and the curd piled up before directed, with frequent stirring. The salt aids in preventing packing, but somewhat retards souring. Before drawing the last whey, cool to 92 degrees, but not below 90.

94. The curing-room should be well ventilated, but free from drafts of air, and be so built that the temperature can be kept uniform. Very rich cheese cures best at 65 degrees; average at 70; and poorest cheese at 75 degrees.

95. The curing process is both a digestive and a chemical one. It secures a much better cheese to have both changes go on slowly. The rennet breaks down the curd and makes it mellow, while fermentation and oxidation develop the flavor.

96. Cheeses, when set on the ranges, should have their exposed faces well greased and rubbed with whey butter.

The next day they should be turned, and have their other faces treated in the same way. For a week or ten days they should be turned every day and have their faces rubbed with the hand. If standing in boxes, the boxes should be turned over occasionally.

97. In weighing cheese for market, all fractions must be thrown in to insure good weight. It is best to have the buyer accept them at their weight when shipped.

98. The boxes should not be too dry, as this renders them brittle, while they draw moisture from the cheese and cause complaints of short weight.

99. Have the boxes fit snugly, so the cheese will not slip around, and pare off the edges to the level of the cheese. Put a scaleboard at the top and bottom of each cheese.

100. Study and observe these hints. It will save you trouble, put money in your pocket, and give the consumer better dairy products.

T. D. Curtis's one hundred hints on dairying have, for some time, been out of print. Before the author's death, he gave the writer the privilege of re-publishing them, which he intends some time to do in book form. But not be-

ing at this time ready to do so, he has concluded to give them to the public in this form. The latter part of the one hundred hints as given above, are devoted to factory cheese making, in which branch of dairying Col. Curtis was an expert, and, as in other branches an acknowledged authority. These hints are worth a year's subscription to the paper.

F. W. MOSELEY.

Clinton, Iowa.

## How to Keep Milk Pure,

Experiments have shown that the contamination of milk occurring under ordinary circumstances can be reduced over 95 per cent. by taking care to avoid all possible sources of impurity and conditions favoring germ growth, says Farmers' Bulletin, No. 63. The fact that bacteria are usually attached to larger bodies makes the work of preventing their entrance into milk comparatively easy. But with all the care that it is practicable to observe, some bacteria will get into milk; therefore it must be cooled as soon as possible and held at a low temperature to prevent their multiplication. The different steps through which milk passes might be compared to the links of a chain—if one is weak the strength of the whole is impaired; so if the care of milk is neglected at any step the care taken at other times may be rendered useless.

The first requisite for pure milk is healthy cows. Any animal suspected of being sick or out of condition should be immediately separated from the herd and not allowed to remain near the dairy. If the milk from such animals is used it must first be boiled. On every dairy farm there should be a proper place for keeping sick or suspected animals.

It is absurd to claim that any large herd can be constantly maintained in perfect health, and when one finds a dairy farm with no provision for the care of sick animals, he has good cause to suspect that the milk from that place can not be implicitly relied upon for its purity.

When a herd is known to be sound, every precaution should be taken before adding new animals. In one case carelessness in this respect resulted in the loss of about one hundred cows that had been in good health until a few fresh milkers, supposed also to be healthy, but later proved to be tuberculous, were introduced into the stable.

The tuberculin test has proved to be a

reliable means of ascertaining the presence of tuberculosis, and its use in any suspected herd is advisable. It does not injure the animals and may be the means of detecting cases that could not otherwise be found, but yet be a source of infection to sound animals. It should be applied only by a competent veterinarian, and after a herd has been tested no animals should be added to it unless known to be free from the disease.

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stiff, open brush does good work in removing dry matter, but soft and damp manure should be scraped from the hips and flanks, and when necessary this should be followed by a washing or repeated washings. It is generally recommended to carefully wipe the udder, teats, and surrounding parts with a damp cloth just previous to milking. This is for the purpose of moistening the dirt and bacteria, which left dry are apt to be shaken off during the milking. Washing or wiping the udder or in any way agitating it before being ready to draw the milk is objected to by some milkers, who believe that this action makes the cow think she is to be immediately milked, and when the attendant returns half an hour later the usual amount or quality of milk is not obtained. Not a few practical dairymen make a regular practice of cleaning all the udders before milking, and have no bad effects. It is probable that cows become accustomed to the cleaning and learn not to expect to be milked until the milker appears with the pail. Care should be taken not to make the parts too wet or the impure water will drip into the pail; they should be only slightly dampened. It is also necessary to use care lest the cow take cold by being washed. The work of cleaning may be lightened by having the hair clipped about the udder and on the flanks, and by the use of clean bedding, not too fine.

Bad effects of feeds may be avoided by changing them gradually and avoiding the use of those which give flavor to the milk—if the latter must be used, the best time is soon after milking. Cows may safely be allowed to graze in a pasture containing some garlic if they are stabled several hours before milking and given dry feed. Such articles as turnips, onions, sour ensilage, etc., should not be stored in the stable, as their odor is imparted to milk through the air.

The proper time for commencing to use milk after calving is easily decided by its appearance and taste, and its behavior when boiled. Colostrum contains much more albumen than normal milk, and this coagulates into a solid mass when heated.

The cleaning of the cow is too often considered of small importance. Every milch cow should be carefully curried and brushed daily, and the udder and lower parts should always be brushed just before milking. It is not enough to clean only the lower parts, leaving the back and sides; the work should be thoroughly done. Some dairymen groom their cows as carefully as horses are groomed in the best stables, their coats are kept smooth and shining, and one need never fear soiling his hands by touching them.

The personal cleanliness of the attendants is often neglected. They should be clean in appearance and habits. Clothes and hands require special attention. Outer garments, used for dairy work only, should be worn, and they should be cleaned often. If a separate suit is kept for milking and is hung in the stable and never aired, it looks and smells badly and is soon worse than the regular work clothes. White material that can be washed is the best for dairy suits. The objection made against

white goods that they show dirt quickly is really in their favor. When a suit is oiled it should show it and be cleaned. On model dairy farms the suits are washed daily; this is not a difficult task, as they never become much soiled and they may be rough-dried. A hat or cap should be used, to prevent hairs falling into the pail from the milker's head. If an entire special suit is not used when milking, one loose outer garment at least should be worn.

Just before milking the milker's hands ought to be washed. His finger nails should be clean, and they should be kept short and smooth at all times. An abundance of water and soap should be available and used. Some recommend washing the hands after each cow is milked; neglect of this has resulted in unconsciously carrying a disease, such as inflammation of the udder, to sound animals. Care must be taken not to let the hands touch the milk, as the skin always has more or less excretions on it, and these help to contaminate milk. The hands should be kept dry and if there are any sores they must be carefully covered before milking. Dirt and milk rubbed into an abrasion on hands or tests cause ugly sores. Smoking or any use of tobacco while milking should never be tolerated, and clothing impregnated with the odor of tobacco should be discarded.

## Fertilizing With Germs.

TALK ON NITRAGIN WITH DR. GOESSMAN AND PROFESSOR BROOKS.

Our readers will call to mind our former accounts of experiments with nitratin or "germ fertilizer" given in the form of an interview with Dr. Goessman. These experiments have been continued during the past year under the charge of Professor Brooks.

Dr. Goessman December 7 is still hopeful that the "fertilizer" will prove of general value, and does not regard the experiments as by any means concluded. Dr. Goessman said in substance:

"Nitragin is a liquid containing germs of the kind which attach themselves to clover roots, or to the roots of other leguminous plants and seize upon the nitrogen of the air contained in the soil. The object of applying nitragin is to introduce those germs into soils which do not naturally possess them. We think the treatment is likely to prove most useful in growing new kinds of leguminous plants, such as the soy bean and cow pea, since each species of leguminous plant has a root germ of its own without which it cannot feed upon the fertility of the air.

## SOWING GERMS.

"When these plants are grown for the first time the special germ which makes them thrive may be absent. In this case the right preparation of nitragin would introduce the germ into the soil, which would serve as germ seed, and the soil would become filled with sufficient numbers of bacteria. We have yet to decide whether this treatment is practical, and should not advise it to the practical farmer except as experiment.

We have sent inoculated soil to a western farmer who wished to try a new kind of leguminous crop, to which his soil did not seem adapted, and his soil became seeded with germs from the imported soil, so that the new crop could be successfully grown. Such a plan however, would plainly be practicable only on a small scale."





## POULTRY.

## Advantages and Disadvantages of Modern Methods of Poultry Culture.

Abstract of Lecture delivered by Samuel Cushing, man of Pawtucket, R. I. at Annual Winter Meeting of the Massachusetts State Board of Agriculture, December 8th, 1897.

Almost every one now realizes the great importance of the poultry industry. Although rapidly extended of late, this country still uses more eggs and poultry meat than it produces. England pays \$50,000,000, every day for foreign eggs while Germany expends \$19,000,000 a year for what she imports from other countries. Russia has won the lion's share of this trade. Other European countries get some of it, and even Australia sends eggs to England. Canada not only produces her own poultry and eggs, but sends quantities to England. As yet, the United States is practically out of it. The Government Agricultural Department is opening up a market for American butter in England. How about the foreign egg trade? The Canadian Government is alive on this matter. Why should not the United States have a share of the trade? Our home market for poultry products may not yet have become so congested as that for dairy products, but it will be easier to win the market now than later. It is cheaper to ship poultry and eggs to England than corn and wheat, besides these products will impoverish our land.

Although Massachusetts farmers are working hard to make money, this state does not produce but a part of the eggs it requires. Millions of dollars worth are brought from other states every year. It is the same in Rhode Island. We do not want to sell our eggs for what western eggs bring, but we are not compelled to do so. We can deliver them when fresh. If of the highest quality, they will also bring an extra price. The eastern farmer can surely make money on poultry. How can he best do it and compete with the western farmer who has such cheap grain? Most people think there is very little to poultry production, until they take it up as a business, then after a few years they change their opinion, and realize they must thoroughly know the business to succeed.

Those who undertake to teach them almost always have stock they want to sell, and they are generally fanciers and pure bred breeders, rather than poultry farmers. Even editors do not like to publish the faults of the different breeds, and it offends their admirers. The public really has hard work to get at the facts. The inexperienced have to try half a dozen breeds to learn which are the most suitable, and then may not know. Thousands repeat the same experiments. This would be needless if the reliable experiences of a few were made public. A great expense would be saved the country.

The methods taught in most poultry papers are suited to the fancier, rather than adapted to the poultry farmer. Too many agricultural papers have simply echoed the teachings of the fancier's papers.

The commercial end of the poultry industry, representing a permanent interest of two hundred and forty millions certainly is worthy of attention. As with market gardening, boot manufacturing, and other lines of business, the specialist, the large producer is getting a grip on the business, and taking it away from the small operator. But there is a chance for the former in poultry production. The more complicated the poultry specialist makes his business, the more skill it requires, and the greater the chances of failure. The risks are greater as well as the profits. He uses breeds adapted to a special purpose, buildings planned to save labor, secure sanitary conditions and best protect the stock; follow the best methods of feeding, and above all has a defined plan that is adhered to and carried out in every detail. He is thus enabled to secure at a slight cost the very best product, even when there is the greatest scarcity, and when it will bring the very highest price.

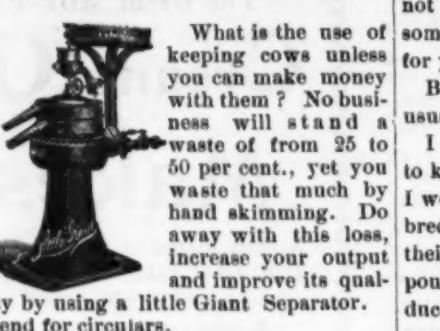
Each season the breeds are being improved for their special purposes, and new information gained as to best and cheapest methods of feeding and management. Therefore, the up-to-date man must constantly study the problem.

I do not believe it is best for the farmer to undertake to follow the specialist; he can produce poultry and eggs cheaper and with less risk. The farther you go from the old methods, the more work you must do and the greater the chances of disease.

The old pioneers did not have to take the precautions against the disease that people in cities do now.

If you keep large numbers and follow

## MAKE COWS PAY.



ity by using a little Giant Separator.

P. M. SHARPLES,

West Chester, Pa. Omaha, Neb.

Dubuque, Iowa. Elgin, Ill.

the head, but the dressed poultry cannot be sold to advantage, or at all in some markets. It is however, excellent for your own table.

Black legs and black pin features are usually objectionable.

I cannot honestly advise every farmer to keep nothing but pure bred poultry. I would like to see everyone use pure bred males of the breed best adapted to their purpose. If one-half even, of the poultrymen of this country could be induced to do this the sale of pure bred poultry by breeders and fanciers, would be ten times what it is today; not only that, but many would succeed where they now fail. Let those who want to follow the business of raising pure bred do so. Let them do the improving and where they succeed, buy your stock of them. The man who raises ten acres of potatoes, does not select the seed that will produce the handsomest blossom.

There is a legitimate field for fanciers who sell exhibition and breeding birds, but those who succeed are a small number compared with the great number who can make money producing eggs and poultry for market. Skilled breeders, that raise but few, like the artist on canvas, do best to produce a few choice artistic productions that bring fancy prices, but the breeder who can conduct it extensively, if he breeds the stock demanded by the practical producers, if sufficiently known, can sell all he can raise at a good price and make the most money.

The male is the most important part of the flock. I am out of all patience with this idea of buying the meanest, cheapest specimen from a pure bred flock. Get the best, having in the greatest excellence the qualities which you desire, and pay what you must.

A bird at from two to five dollars, is a wise investment, even to grade up common stock. If you reckon the difference it makes in the increase in egg production alone, you will be convinced.

The size and marketable qualities of the whole flock depend greatly upon the male used.

Producers of cattle, sheep and hogs for market have found they usually get stronger animals and better market stock by producing first crosses and high grades. By using a male of the same breed year after year, we secure grades that are hardy and have the qualities of the pure breed. If males of different breeds are used each season, the stock soon becomes very inferior.

The more they are mixed in this way the worse they become. By crossing two pure breeds they are very dissimilar, we secure an increase in hardiness in the first cross, as well as the special qualities in each breed in a high degree.

The feeding power is also greater.

These first crosses, the males make not only give one pleasure, but appeal to the better side of one's nature and so encourage virtues that few other avocations do.

The best breed is the fowl best suited to your place, and whose product sells the best in your market. There are many different breeds, each having qualities suited to a special purpose. In some breeds, the various extreme qualities have been combined, and they, although not as good for any of these special purposes, are fairly good for all purposes, and are therefore popular with the majority who do not follow special branches.

Each breed differs under different management, and in different sections of the country. Each has undesirable as well as good qualities. Some markets call for white eggs and others for brown eggs, some require yellow poultry, while others will take anything that is plump and soft, regardless of the color of skin or legs. If you want to produce winter eggs you want one thing, while for eggs in summer you want another breed. Certain breeds are very hardy and can stand exposure and hardship, while others more prolific are very tender. Some are very quiet and fatten readily, and other so active, it is impossible to get them fat. There are those that excel in flesh production, but in little else.

Brahmas and cochin are of great value to the industry on account of their hardiness, and always will be. They are not hustlers like the active breeds, but stand cold and confinement well. The non-sitters, the Minorcas, Leghorns, Hamburg, etc., are the greatest layers; unless protected from cold and damp and given considerable, they will contract disease. The old English Games, the Cornish Indian, the Malays, Black Javas and Aseels, are great flesh producers, but are less hardy than Chinese breeds, and much less prolific than the non-sitters. These different classes have been combined in various breeds, among which the various Wyandottes and Plymouth Rocks are the most popular. They are rather too beefy to make the best layers, and not as hardy as the Cochins and Langshans, but as they are fairly hardy, fairly good layers, and good flesh producers, they meet the needs of the majority. They have enough of the beef and hardy blood to be quiet and withstand cold, and they produce brown tinted eggs and lay well in winter. Their worst out is a tendency to get so fat by the second year, that they are no longer profitable egg producers, and must be marketed.

Make the care of the stock the principal work now.

**Hood Farm**  
FOR SALE.—Bull calf combining the blood of the World's Fair Champion, 1893, and the 1894 Sire, Brown Besse's Nonpareil. 5 in the 14 lb. list, a son of the great Besse. Dam, 18 lb., 6 oz. Damsire, 5 lb. 3 oz. in the list and of Mrs. Madsen, winner of the sweepstakes for the individual cow, all three tests combined. World's Fair Lowell, Mass.

## APIARY.

## Who Should Keep Bees?

The fruit growers first of all should give this matter their attention. Did you ever think of the amount of nectar that is wasted every year in the strawberry field, the raspberry plantation, or apple, peach, and pear orchard? Indeed, it is worse than wasted, as the bees perform a very important office while they gather the nectar, viz., fertilizing and cross-fertilizing the flowers, and the result is a larger crop of better fruit.

I am quite sure that it will pay a fruit grower to keep a score or so of colonies just for the work the bees do on the blossoms. Of course, where a locality is well stocked, this would not count, but I often see large territories devoted to fruit with very few bees indeed. There is not the least doubt but in such localities there would be a noticeable difference of productiveness if a few apiaries were established.

Mr. A. I. Root mentions a case where by injunction the beekeepers were compelled to remove all their bees from a certain fruit locality as the fruit growers claimed the bees ruined their fruit. When the bees were gone the trees would not set, though they would blossom ever so abundantly. Sometime afterward the fruit growers learned their lesson and invited the beekeeper to bring back the bees and soon the abundance of fruit showed plainly that the bee is of infinite value to the fruit grower. Sir John Lubbock, in his "Fruits, Leaves, and Flowers" and "Ants, Bees, and Wasps," gives some very apt illustrations of this law.

The suburban resident, who does professional work in the city, generally of a sedentary nature, will find amateur bee culture a most delightful exercise and quite a fascinating study. The careful observation and study of the habits of these orderly, intelligent and self-sacrificing little insects not only give one pleasure, but appeal to the better side of one's nature and so encourage virtues that few other avocations do.

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The best breed is the fowl best suited to your place, and whose product sells the best in your market. There are many different breeds, each having qualities suited to a special purpose. In some breeds, the various extreme qualities have been combined, and they, although not as good for any of these special purposes, are fairly good for all purposes, and are therefore popular with the majority who do not follow special branches.

Each breed differs under different management, and in different sections of the country. Each has undesirable as well as good qualities. Some markets call for white eggs and others for brown eggs, some require yellow poultry, while others will take anything that is plump and soft, regardless of the color of skin or legs. If you want to produce winter eggs you want one thing, while for eggs in summer you want another breed. Certain breeds are very hardy and can stand exposure and hardship, while others more prolific are very tender. Some are very quiet and fatten readily, and other so active, it is impossible to get them fat. There are those that excel in flesh production, but in little else.

Brahmas and cochin are of great value to the industry on account of their hardiness, and always will be. They are not hustlers like the active breeds, but stand cold and confinement well. The non-sitters, the Minorcas, Leghorns, Hamburg, etc., are the greatest layers; unless protected from cold and damp and given considerable, they will contract disease. The old English Games, the Cornish Indian, the Malays, Black Javas and Aseels, are great flesh producers, but are less hardy than Chinese breeds, and much less prolific than the non-sitters. These different classes have been combined in various breeds, among which the various Wyandottes and Plymouth Rocks are the most popular. They are rather too beefy to make the best layers, and not as hardy as the Cochins and Langshans, but as they are fairly hardy, fairly good layers, and good flesh producers, they meet the needs of the majority. They have enough of the beef and hardy blood to be quiet and withstand cold, and they produce brown tinted eggs and lay well in winter. Their worst out is a tendency to get so fat by the second year, that they are no longer profitable egg producers, and must be marketed.

Make the care of the stock the principal work now.

**Care of Bees In Winter.**

If the bees are properly placed in winter quarters, which should be done before winter is on, there is but little to do during the winter. As a matter of fact, no meddling with bees in any way must be done in cold weather, and the only time we can work with them is during a warm day when they are flying. If bees get a good fly once a month they are likely to keep in good condition, but if cold weather continues along for weeks and months without any let-up, the bees are not liable to fare well. Especially so with those that are not in any way protected.

Bees wintered out in thin hives, as a necessity, must draw heavily on their stores to keep the required amount of animal heat, and with such in every case, they must have frequent flights, or dysentery results, and the loss of such colonies follows.

Those that are well protected can withstand much more cold and do not become affected thus, and are in condition to bear much longer confinement.

It is impossible to accomplish anything in the way of remedies when they become so affected, and only warm weather so that they can fly freely will cure them.

All stock of every kind should be excluded from about hives in winter, and the hives should not sit near a road-way or near a railroad. Heavy losses of bees have been reported where they have been kept close to a railroad by the frequent jarring of the hives, thus arousing the bees to activity, which always results in their consuming stores heavily, and this, connected with long confinement on account of cold weather is sure to result in disease.

Good, healthy stores has much to do with wintering also, as some varieties of honey are not as good as others.

The condition of the honey in the hive has much to do with the healthfulness of the bees. A large amount of unsealed stores is very damaging in winter.

crease the Crop without Corresponding Cost of Production. Manures and Fertilizers. The Soil. Depth of Planting. Seed. Culture. The Rural Trench System. Varieties, etc. It: respectfully submitted that these experiments at the Rural Ground have, directly and indirectly, thrown much light upon the various problems involved in successful potato culture than any other experiments which have been carried on in America. Price, cloth, 75 cents paper 25 cents.

For Sale by Mass. Ploughman

MAKING POTTED PLANTS

FOR THE HOME

BY M. J. HARRIS

FOR THE HOME



BOSTON, DECEMBER 25, 1897.

Persons desiring a change in the address of their paper must state where the paper has been sent as well as the new direction.

## PLOUGHMAN FARMERS' MEETING.

Saturday, January 1, 1898, 10 A. M.

ESSAY by SAMUEL CUSHMAN, Pawtucket, R. I. Subject—The Farmers' Poultry; Suggestions on Housing, Feeding, Breeding and Marketing.

The first of the MASS. PLOUGHMAN Farmers' Meetings will be held in Wesleyan Hall, 36 Bromfield St., Boston, Saturday, Jan. 1, 1898, at 10 o'clock A. M.

We have had many inquiries in regard to the opening of our Farmers' Meetings this season, which is good evidence of the interest they have for the farmers all over New England. We shall be glad to have all our friends and anyone who is interested in the poultry question, attend the first meeting of the season Saturday morning, January 1, at Wesleyan Hall, 36 Bromfield St. Our poultry meetings are always the most enthusiastic and largely attended of any of the series, and this will prove no exception. Prof. Samuel Cushman of Pawtucket, R. I., will speak on a thoroughly practical topic, and those who heard him last year at our Farmers' Meeting, and have read some of his writings since, know the meeting will be well worth coming some distance to attend. The special subject is announced in this issue, but no one who has the least interest in poultry raising or thinks of going into it at some future time, can afford to stay away. The PLOUGHMAN welcomes everyone, and we would extend a cordial invitation to the ladies, who have proved themselves to be especially successful in this branch of farming. We hope many of them will be present.

## SOME SAVING IS WASTE.

HUNGRY land: hungry owner.

DEBTS before improvements.

WORK head more and save heels and hands.

TAKE time to think how to be a better farmer.

AN honest heart is better comfort than a box of bonds.

DOSES of industry, economy and hope cure hard times.

NEGLECT is a cousin to laziness; both are relatives of waste.

BE generous with the farm, but make it account for every cent.

CONSTANT borrowing makes bad neighbors; a borrowed tool stays a long time lent.

THE most wasteful of wastes on the farm is the purchase of poor stock and poor seed.

ANYBODY can become well-to-do who has sense enough to work and to keep what he earns.

THE man who merely knows how is likely to be found working for the man who knows why.

A SOLID and permanent improvement for the farm is road making. Good roads save time and horse-flesh.

AN enthusiastic man is likely to succeed in the line of his tastes, because he is up to the best he can.

MACHINERY and tools will wear out and so will your back. Better save the latter, for you can't get another.

No matter how large the crops or how good the stock, the farm is failure where the children turn out to be scurvy.

In planning the corn crop for the silo, a fair average allowance is an acre for each three cows, if the cows are fed the usual additions of hay and grain.

OUR readers ought to use the experiment stations more frequently. A great deal of valuable matter is sent free in the form of bulletins and various materials are analyzed without charge.

WHAT a lot of breath will be wasted during 1898 talking politics. Pity the farm cannot be run by wind power! If some farmers were as keen upon farming as they are on politics, they would make money.

WHY leave all the fun of making experiments to the experiment station? The only sure way to prove the value of a new thing is to try it yourself. Every farm should be a little experiment station, and its owner the director.

STATE OF OHIO, CITY OF TOLEDO, ss.

FRANK J. CHENEY makes oath that he is the owner, either of the firm of F. J. CHENEY & CO., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED THOUSAND DOLLARS to every case of Cancer that is not cured by the use of H. L. C. CATARINE.

FRANK J. CHENEY.

Sworn to before me and subscribed in my presence, the 6th day of December, A. D. 1898.

A. W. GLEASON,

Notary Public.

Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

F. J. CHENEY &amp; CO., Toledo, O.

Hood's Soddy Druggists, 78.

## CURRENT TOPICS.

Not one passenger was lost through the perils of the deep in 1897 on the Great Lakes. One jumped overboard and was drowned of his own choosing; otherwise not one of all the thousands is named missing now that the season's tale is told. Of Lake Michigan, the "Stormy Water" of the Indian, is the tale especially marvelous, for the Chicago lines alone carried half a million passengers. The Lake Michigan & Lake Superior Transportation Company, Chicago to Duluth, carried over 20,000. The whaleback Christopher Columbus had 125,000 passengers. The Graham & Morton Company had almost as many. The Goodrich Transportation Company carried 200,000. Sixty-eight sailors were killed. This is about the yearly average of the loss of life among the sailors. The one disaster of the season, the loss of the Idaho on Lake Erie, drowned nineteen. Of the other forty-nine, three committed suicide and twelve escaped drowning to fall through hatchways.

An innovation which will affect a large part of the mail matter passing through Boston, is the introduction of the pneumatic transmission of the mail from the post office to the Union Station. This is accomplished by sending the mail matter in cylindrical steel carriers through tubes laid underground between those two points, the motive power being compressed air. These carriers will each contain some six hundred letters and can be despatched at the rate of ten a minute, so that, if necessary, six thousand letters can be sent through the tube per minute, or 360,000 letters an hour. The carriers are so constructed that the parts which take the mail can easily be replaced, and so that no shock comes to the parcels within. To illustrate this latter fact, clocks, dolls, lamps and other fragile articles were sent through without injury at the time of the official test, and even bouquets of flowers found their way through without being damaged. The saving in time will be considerable, as by means of the pneumatic tube, the mail is delivered in a minute and a half, whereas by teams, as heretofore, from twenty to twenty-five minutes was required. Although a new thing in Boston, it was introduced a little while ago in New York and Philadelphia, and has been used satisfactorily for a long time on the Continent and in England. Other lines will be constructed in this city in the spring, connecting the Southern Union Station and the suburban offices with the central office, which will greatly improve the mail facilities of the city.

The world's production of gold in 1896, according to the advance sheets of the forthcoming report of the director of the mint, was 305,379 kilogrammes, or 9,817,901 ounces, fine, of the value in round numbers of \$203,000,000, as compared with 299,885 kilogrammes, or 9,641,377 ounces, fine, of the value of \$199,304,000, in 1895, an increase of \$3,696,000. This increase of the world's gold output in 1896 over that of 1895 is not as great as was that of 1895 over 1894, which amounted to \$18,129,000. The reduction in the increase of the world's production in 1896 over 1895 is due almost entirely to the diminished product in the Witwatersrand district in 1896.

The world's output of silver in 1896 was approximately 5,136,274 kilogrammes, or 165,100,887 ounces, fine, of the commercial value at the average prices during the year of \$0.674 per ounce, fine, or \$11,278,000, and the coining value of \$213,403,700—a decrease as compared with 1895 of 68,000 kilogrammes, or 2,187,842 ounces, fine, of the commercial value of \$1,474,606, and the coining value of \$2,828,725.

The cotton industry of Massachusetts employs a larger amount of capital and a larger number of workmen than any other one industry in the state. At present the market is very much depressed and the problem which confronts the manufacturers is a very grave one. They claim that they are being driven to the wall by the sharp competition of the Southern manufacturers. The latter are enabled to produce cotton goods at a much lower cost because of their nearness to the raw material, cheap water power and coal, cheap labor, freedom from restrictive labor legislation and the dictation of labor organizations. The Northern manufacturers claim that there is no other way to solve the problem except by cutting wages, and several mills have already voted a reduction. The manufacturers have shown themselves very willing to confer with the employees as to finding any other way out of the difficulty but are unwilling to adopt the suggestion made by them that the number of working days should be curtailed.

Congress adjourned last Saturday until after the Christmas holidays and most of the members returned to their homes. The last day of the session, the conference report on the emergency relief measure for the Klondike country was presented and agreed to. It fixes the amount of relief at \$200,000, provides for securing the consent of Canada to extending the relief to the Canadian side, and authorizes the use of the army to carry out the relief measures. It also provides that the money must be purchased, not donated.

The annexationists are quite hopeful over the prospect of the ratification of the treaty with Hawaii. They report that the opposition is breaking up and that there is a good outlook for the triumph of their cause.

A fight is being made all along the line against the civil service reform system. A bill is to be framed to reform the present civil service law, which will be introduced shortly after the holidays are over. Much material is being collected to show the maladministration of the law and the opponents of the further extension of the merit system claim that it was never intended that the present law should have such a wide application as it has at the present time.

The shipment of agricultural and other food products to Europe is apparently showing no decrease, says the Advertiser. Although imports into the United States during the past five months have decreased, as compared with the normal amount, it is evident that Europe is even more anxious than ever to get food supplies from the United States. In the increase in the export business of American provisions, it is worth some notice that the commerce of Boston has gained a full share. The total exports of provisions from the United States, in the eleven months of 1896 ending Nov. 30, amounted to a value of \$148,000,000. The exports of provisions for the corresponding period of the present year had a value of more than \$154,000,000. In this increase it is noteworthy that the proportion of Boston's gains was decidedly better than that at any other of the principal competing ports of the United States.

Out of all American ports doing a large business in the export of provisions Boston alone showed a gain of much more than five per cent, and practically stood at the head of the list in its proportion of increased business. One reason for this increase may be found in the wise policy which some railroads of this section are

pursuing, in combining freight with passenger business by the use of the "composite" type of transatlantic steamship. The result of this change is not only beneficial to Boston's commerce, but it is also calculated to invite passenger business to this port.

The prospect for the surrender of the insurgents in Cuba and the establishment of autonomy seems but a poor one in that island. In addition to the reports which reach this country of many additions to the insurgent forces, there comes also the news that Lieut. Col. Ruiz was shot by command of General Rodriguez. Ruiz offered himself as a messenger to General Blanco to go to the insurgent camp to offer terms of surrender to the leaders. Previous to this General Blanco had announced that any Spanish envoy who was found in an insurgent camp, seeking to induce the insurgents to surrender, should be put to death. Colonel Ruiz was so found by Gen. Rodriguez, and in spite of the protests of some of the Cuban leaders and the friendly intervention of representatives of the United States government, he was court-martialed and shot. The event has caused great excitement in Havana and is significant in indicating the resolve of the insurgents to make choice only between independence or death.

It is reported that General Blanco has declared that within a reasonable time after the establishment of autonomy in Cuba it is clearly seen that it has no practical effect in the restoration of peace, he will tender his resignation to the Central Government and return to Spain.

It is believed that simultaneously with the publication of the decree of autonomy the captain general will issue a proclamation inviting the insurgents to surrender in view of the concessions made by Spain to the island.

A well known leader of the Conservatives in Havana, expresses himself of the opinion that the step taken by the Spanish Government in passing over the Cortes to modify so radically the constitution of Cuba, is too reckless to have any enduring character. The same views are entertained by many persons there, and the autonomy decree has not aroused much enthusiasm.

## The World Over.

Henry Labouchere gives in Truth a new story of King George's duplicity in the Turco-Greek war.

Miss Ellen Nussey, who acted as bridesmaid for Charlotte Bronte, has just died at Birstall, at the age of eighty-three years.

Artesian wells have proved successful in New South Wales, the area within which underground water is found extending 62,000 square miles.

The most costly piece of railway line in the world is that between the Mansion House and Aldgate Stations in London, which required the expenditure of close upon 2,000,000 pounds a mile.

A special despatch from Hamburg says: Prince Bismarck, who braced up for the emperor's visit, has relapsed into his former weakness, despondency and persistent insomnia. His physician says Prince Bismarck is rapidly declining.

The North German Lloyd steamer Darmstadt, having on board half the number of volunteers bound for China and an immense amount of war material, has left for the far East. The steamer Creole will follow in a fortnight with the rest of the volunteers and more material.

Mrs. Hannah Kingsley has just celebrated her one hundredth birthday. She was born in Kesselsviller, N. Y., Dec. 12, 1797, the third of a family of six children. In the spring of 1812 Mrs. Sears came with his family to Van Buren, and here Hannah Sears was married to Cyrus H. Kingsley Dec. 16, 1815. Mr. and Mrs. Kingsley began housekeeping upon the Van Buren farm, which has for eighty-two years been her home.

A report is current in official circles in Berlin to the effect that the German military authorities intend to raze all the forts along the Russian frontier, nearly all the ordnance, which is of a date prior to 1855, being superseded by modern design and recent manufacture.

The Russian minister of the interior has issued an order prohibiting four newspapers—the People, the Echoes of the World, the Son of the Fatherland and the German St. Petersburg News—from publishing advertisements. This is a disciplinary penalty imposed upon them for having reproduced from the Svet a sedition letter written by some students of the Warsaw University.

Lieutenant Robert E. Peary, U. S. N., and Mrs. Peary are on their way from England to the United States on board the American line steamer St. Paul, sailing from Southampton. The lieutenant has been besieged by inventors, who have submitted plans for flying machines, submarine boats, iceboats, steam engines and electrical apparatus for reaching the North Pole, all impracticable.

Remonstrances addressed by the foreign Powers to the Porte have resulted in the latter obtaining from the Imperial Ottoman Bank a temporary loan of \$100,000 for the specific payment of the arrears of the salaries of the now destitute Turks of Constantinople. The lieutenant has been besieged by inventors, who have submitted plans for flying machines, submarine boats, iceboats, steam engines and electrical apparatus for reaching the North Pole, all impracticable.

CITY fruit handlers manage to keep Catawba grapes well into the spring season. This long keeping fruit is carefully selected and handled and kept at low temperature in the store house. This plan provides a market for thousands of tons of grapes which would otherwise be a drug on the market during the height of the season.

Arthur E. Leonard has sold his stock on Causeway street, Millis, to John H. Smith of Chippewa Falls, Wis., together with a large amount of personal property. The property consists of 100 acres of land, first-class commodious farm buildings, and is assessed for \$6000. Mr. Leonard has spent much time and money in making this one of the most desirable farm properties.

Read and Run.

—There is more news of lack of food at Dawson City.

—Leaf tobacco reached its highest point in years lately.

—The Boston horse show will not be held next spring.

—Georgia is to have the first textile school in the South.

—A million-dollar fire has been reported at Grand Forks, N. D.

—A treaty with the Seminoles has been made by the Dawes Commission.

—The iron ore receipts at Erie exceeded last year's record by 500,000 tons.

—Jordan, Marsh & Co., inaugurated profit-sharing with their employees this week.

—Mr. and Mrs. Hiram Wordell of New Bedford celebrated their golden wedding recently.

—About 4,000,000 false teeth are manufactured annually in the United States, while one ton of gold and three tons of silver and platinum to the value of \$100,000,000 are used in stopping teeth.

—It is claimed that the potato crop of Minnesota this year will net the farmers between \$5,000,000 and \$8,000,000. There seems to be a wide difference between the figures, but even at the lower estimate they show that the State is making a profit on the investment.

—Mr. Joseph H. Potts of North Billerica, recently shot a magnificent specimen of the Arctic owl, and the bird is now being mounted. It was found that he measured five feet and four inches from tip to tip. The Arctic owl is a rarity in his collection of the early Venetian days, of its departed glories and customs. He shows them the beautiful combinations of color which play over the time-stained walls of the Venetian dwellings, bids them note the picturesqueness and happy-heartedness of the Venetian street-life, paints for them the glowing tints of the sunsets and sunrises which glorify that city and makes them feel the rich beauty of the moonlight night in Venice. He tells them with the aid of his friend, the Professor, stories and legends of the early Venetian days, of its departed glories and customs.

There appears to be but one rainy day in Venice, but even that becomes a day gay by reason of the liberties which the high tide takes with this city of the sea. The description of the gondola race is especially fine, with its dash and spirit. The illustrations add much to the beauty of the book. It is rarely that illustrator and author are so happily combined as they are in Mr. Smith's writings. Published by Houghton, Mifflin & Co., Boston.

—The town of Jay claims one of the biggest trees in Maine. It stands on the bank of the Androscoggin, and the circumference four feet from the ground is twenty-three feet, diameter seven feet.

About six feet from the ground there are seven branches radiating from its trunk, which are from 18 inches to 24 inches in diameter. The branches spread over a space of ground 270 feet in circumference, or 90 feet in diameter. A Boston man was riding by recently and the tree attracted his attention. He examined and measured it and was astonished at its dimension. He went away with the remark that if the tree was on his lawn \$10,000 wouldn't buy it. It was set out forty-two years ago by Lafayette Bean on the day of his departure for California whence he never returned.

## "The Great Milk-Producing Food of the Age," Cream Gluten Meal! MILK MONEY

A little higher in price, but of far GREATER FEEDING VALUE. THE ANALYSIS is always printed in large letters on each sack. Always sold in 100-pound sacks, never any other way.

Manufactured by the CHAS. POPE GLUCOSE CO., at Geneva and Venice, III. NOT MADE BY A TRUST. ASK YOUR GRAIN DEALER FOR IT.

## S. L. LAMBERT, A. J. C. C., JERSEYS.

Young ones For Sale. Send for Prices and Pedigree.

HOBBART FARM, Dover, N. H. OR J. W. HOBART, 73 Tremont St., Boston



## THE HOUSEHOLD.

For the Mass. Ploughman.  
JACK'S COMPLAINT.  
BY MABELLE P. CLAPP.

I think it's a shame Santa Claus can't remember what little boys write to him, first of December. I wrote him a letter and said, "Mr. Claus, I sha'n't hang up my stocking this Christmas, because I want a baby, I'm too big for toys. Papa is me, we're fondest of boys, And Mamma doesn't care, so please send a brother." Your little friend, Jack." After all that brother, I felt pretty bad when Christmas they said, "Jack will be sent upon Mamma's bed." Course I didn't tell her, I only kissed her. But he'd gone and forgotten and sent a sister.

## Santa Claus Knows.

Grandmother says I'll lose my head next.

Papa says he can't afford to buy me any more knives. Mamma says she'll have to send my clothes on.

That's because I left my jacket on a fence corner when I took it off to play ball, and I came home without it, and when I went back where it was it wasn't there.

Nora says we'll all starve next.

That's because I went to buy some things, and I lost the paper they were written on, and when I was looking for it I found a cent, and I heard an organ-grinder and a monkey, and me and Billy Watkins went to give 'em the cent, and we went round after 'em a little while, and when I got home it was dinner-time, and the things to eat weren't there.

I wish my things wouldn't always get lost. Mamma says it's because I'm not careful of them, but I guess she doesn't know how easy it is to lay down your knife by the creek when you're making willow whistles and forget all about it.

Or to throw your ball the last time and never see where it goes when they call you to wash for supper, and never think of it again till the next time you want it, and then you don't see it again till some one picks it up under a bush all soaked.

Or to leave your new felt hat on the grass when you're playing mumble peg and Rover finds it and tries to eat it up.

Or to have your tops and handkerchiefs and shoes and gloves always getting lost all kinds of ways.

One day grandmother asked me if I thought Santa Claus would bring anything for boys who lost everything.

"I guess he don't know," I said.

"I believe he does know," grandmother said. "He always seems to know pretty well what you want in your stocking, doesn't he?"

He does, you know! And I began thinking I'd better be careful, for Christmas was coming. But somehow I wasn't, for that very day mamma sent me with a sponge cake over to old Miss Pratt's and I just set it down while I was looking for some gum on the old cherry-tree, and the first thing I knew Rover had it half eaten up, and I guess he thought it was better than felt hats.

But I was hoping Santa Claus would not be about it—and about some other things when he had so much to see about Christmas time.

We'll hang up our stockings. I had a great time trying to find my best red ones, and at last I found one where I'd rolled it into a ball to shy at Tom, and it fell behind some books, and it had a dreadful hole in the toe because it hadn't got into the wash, and so it hadn't got mended, but I thought Santa Claus'd be too busy to notice that.

But when he looked out of the front window, there was a big hollow place in the snow drift, as if some one had lain there, and he still thinks that he saw Santa Claus.—Primary Education.

"Oh, I can have a larger sack to carry on my back."

"But what will you do with your reindeer? They will have nothing to do."

"Well, they are getting old and need a rest. It is very cold driving them so far, and sometimes I am nearly frozen. I think I should freeze if I didn't get warmed going down the chimneys. But you can always keep warm on a wheel. And it does one good to ride a wheel."

"It may be good for young people Santa, but you are too old."

"Too old! Not a bit. Besides, old people as well as young, ride."

"And you will grow thin working so hard. And what would people think of a thin Santa Claus?"

"Oh, my good wife, it will not take off a pound of my flesh. It is no work, at all. When I order all the wheels the boys want, this year, I think I'll order one for myself."

"Well," said his wife, "a wheel may be a fine thing, but it will not seem much like Christmas if I do not see the reindeer prancing about."

Santa Claus got his wheel before Christmas and rode a few times. When Christmas Eve came he started off on it with a big pack on his back. Everything went well for a time. None of the boys and girls heard him as he rolled softly over the roofs, though you may be sure many of them were lying awake to hear the sound of bells and hoops.

Santa Claus laughed to himself, and said, "This is the way to ride! And it doesn't cost anything to keep a wheel. When I get back I'll sell my reindeer to some people in Lapland. I shall have a little while, and when I got home it was dinner-time, and the things to eat weren't there."

I wish my things wouldn't always get lost. Mamma says it's because I'm not careful of them, but I guess she doesn't know how easy it is to lay down your knife by the creek when you're making willow whistles and forget all about it.

For to throw your ball the last time and never see where it goes when they call you to wash for supper, and never think of it again till the next time you want it, and then you don't see it again till some one picks it up under a bush all soaked.

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But when he looked out of the front window, there was a big hollow place in the snow drift, as if some one had lain there, and he still thinks that he saw Santa Claus.—Primary Education.

A Runaway Christmas Tree.

It was Christmas day, and somewhere the other side of Fargo. We had been snow-bound for three days in Montana, or we'd have all been home.

At a little station a man got on who was soon talking familiarly. He seemed like an honest man; indeed, the domine detected a childlike note in his character which he suspected might come from the man's long life close to the great heart of nature. After he found that he could not sell us any lots in Centropolis, he laid aside business and told the following story. We should have doubted parts of it had it not been for the man's intimate association with the great heart of nature. He said:

"Queer place to spend Christmas, gentlemen; but queer things are always happening in a new country. Makes me think of a little occurrence at Christmas time last year out near where I live. There are a few Scandinavians around there—hang-up class of settlers. Honest as the day is long, and guileless as a new-born babe. This thing happened at the Johnson school-house, near where my friend Ole Erickson lives. A few days before Christmas Ole came to me and said:

"'You see here, Mr. Jackson—my name is Jackson—you know me fader-law, man Olson?'

"'Yes,' I said.

"'Well, he has a team of work-horses ay wants to buy, but heas ask too mooch for'em. Aye tank ay feek de old yentleman so hea sell de horses sheep. Dares goes to be a Chrestens tree out at yonson school-house—aye going to poot on somet'ing nice for heem. Aye tales mae vooman aye poot on vun cow. Eet meek heem good to geet a cow. Aye haf vun cow dat was dry. Aye doan geet no meek. Aye tales mae vooman aye poot on dat cow for mae fader-en-law. Dais cow not beees mooch on geefing meekly any time—all long legs, long horns, sweach her tall, unk keect de meekl forty rod. Aye says to mae vooman de keel two birds vid wan rock—geet de old keek, unt geet de team sheep. Aye tank ay bees onto mae yob all right'nough!'

"'But you can't put a cow on a Christmas tree,' I said to him.

"'Oh, ay not hang her pop on de tree; ay yust tie her to eet.'

"So he went off, and afterwards I heard about how it all came out. Ole and his wife took the cow, and just before the thing opened up got to the school-house. 'We vants to poot on de cow,' says Ole; but they wouldn't listen to him. But Ole wasn't to be blinded that way; so he says, 'Tal you vat eyo; aye stand de cow behind school-house unt open de back door a little unnt poot de troo de crack unt tie eet to de bottom of de tree.' The original Madonna of the Chair is now in the Pitti Gallery at Florence. Evelyn S. Foster, in Every Other Sunday.

I looked and saw my other red stocking that I couldn't find hanging there all clean and mended, and I don't know to this day how I didn't see it before, and there was a muffle for me and a new knife and lots of other things, and Tom showed grandmother the old stocking, and she took up the things that were in it, looked at 'em, and said: "Yes, yes, I see how it is. These things are for a careless boy. Of course Santa Claus couldn't put nice things in such an old stocking as this. And the nice things are for a boy who is going to be good and orderly.—The Household.

## Santa Claus' Wheel.

"Yes," said Santa Claus, "I must have a wheel."

"A wheel?" said Mrs. Santa Claus.

"Yes, my dear, a wheel. Everybody rides a wheel now. Think how softly I could go about on a wheel. You know some of those children are always trying to see me and they lie awake Christmas Eve to hear me coming. It is no easy matter to make my reindeer go softly. They've almost caught me many a time."

"But how can you carry all the presents without your sleigh?"

rope which was around her horns through the crack and tied it to the tree just above the floor. The tree was a small one, which wasn't strange, as it had come three hundred miles by rail."

"It was a mild night, and the cow consented to it all right enough, so Ole and his wife went around front and took their seats with the others. There were the regular exercises that they always have at such contraptions—singing by the Sunday-school, speaking by some members of the infant class, and that sort of guff, after which the minister got up and said: 'My friends and brethren and sisters, what a beautiful tree we have here, and what rich fruit it bears!' We are, most of us, far away from our former homes, and in a new and untried country. We know not what may be before us for the coming year, but of this tree and the many presents it holds we are certain. We can pluck the gifts of loved ones from its branches, even as I do now, and—Just then Ole's cow jerked around her head, and the door swung open, and she saw the light, let out one bellow, and made a jump like a kangaroo, yanking that tree out of the door butt-end first. Then she went tearing off down the road towards home, bellowing at the top of her lungs, kicking like a boy mule, and snatching that tree along behind like a plug hat tied to a dog's tail. Ole came in to tell me about it next day. 'Dat old keeper, she never stopp see her geet to mae place,' he said, 'unt de presents all along de road. Unt de people day say eef day can geet de tree, dat day stand heem oop, unt day leech Ole on heem. So mae mae vooman we send all de night peeking oop de tings vid a lantern unt carrying them back. But we tank some of dem geet lost en de snow after all.'

"Did you take the cow over to your father-in-law's this morning?" I said to him.

"His face got as long as a fiddle, and then he said:

"'Yah, aye tek her ofer. Unt he meek a grin on hees face, unt he say, 'Dats pertty nice, Ole.' Den after a while aye say to heem, 'How mooch for dat team of work-horses?' Unt de old fader ha say, 'Two hundred dollar'; but last week hee say van hundred seventy-five. Den aye feel like aye wish de cow might keek me foye rod, like she do meek-pail.'

"I always feel rather sorry for Ole because the scheme failed; but all of us slip on our plans once in a while.—Harper's Magazine.

## La Madonna Della Sedia.

Raphael painted a great many pictures of the Madonna. Some of these have a grander beauty than the Madonna of the Chair; but this is a representation of sweet, human affection, and while other Madonnas win our wondering admiration, this wins our deepest love. The mother sits in a low chair with the little Christ-Child closely clasped in her arms; His hands are concealed by her drapery, and her face is resting against His. The little Saint John with folded hands stands near them; in his arms he holds a small cross. The cross and the folded hands are indeed prophetic of the spiritual connection that existed between Jesus and Saint John when childhood gave place to manhood, and the life-work of the one prepared the way for the life-work of the other, but the picture is more suggestive of two little cousins stopping for a moment in their play to nestle beside a loving mother. The Madonna's face is sweet and youthful, and the little Jesus resembles her.

There is a pretty legend connected with this painting. It has been repeated again and again, but possibly some of my readers may not be familiar with it. To know it adds greatly to the enjoyment of the picture. It has a charm that fails to cling to all legends that are illustrated by the old paintings or associated with them, for it is quite possible to believe it true. This legend tells us that long years ago, when Raphael was upon earth, there lived among the hills of Italy a good old hermit, who was called Father Bernardo. "Are you not lonely and sad?" some one asked him, knowing how solitary he was. "Oh, no," he answered, "for I have two daughters who are kind to me; one is a talking daughter, but the other is dumb."

It was afterward learned that the dumb daughter was a noble old tree that grew beside his hut, and that the talking daughter was Mary, whose father was a vine-dresser, who also lived among the Italian hills. Mary loved the old monk, and often ministered to his comfort.

After a time the old hermit's hut was made unsafe by a freshet, and Father Bernardo only saved his life by climbing into the arms of his dumb daughter. He remained there until Mary and her father came and took him to their home. His talking daughter cared for him, too, tenderly until he died. Before he passed away he prayed that God would distinguish his two daughters with special blessings, in remembrance of the protection and comfort they had given to the lonely hermit.

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## An Odd Christmas Tree.

A young girl, living in the south-east part of the country, where there are no wild evergreen trees, was anxious to celebrate Christmas; and this is the way she did it. The account is taken from a letter describing it to a friend:

"But I must tell you of our Christmas. In the first place mamma had said she could not afford to give us older ones any presents this year; but A. and I determined to have a Merry Christmas anyway, and surprise the others. We soon thought of a way. We determined to use an umbrella frame for our Christmas tree.

"Everything was done in secret. Mamma consented to let us have what presents she had for the little ones, but she could not think what we intended to do. Christmas eve, armed with umbrella and rope, we went to our own room. There were some candles left from our last year's tree, which in the absence of holders, we tied on. The rope we stretched between two hooks and hung the umbrella on it. We decorated it with snowy chains of popcorn, animal crackers, and doughnut babies. I never made doughnuts before, but Christmas excused their faults. Our candy and nuts were home-made and home-grown. We had molasses taffy, maple sugar with walnuts, and cream candies. We put J.'s share in a miniature man made of black satine, because he is so fond of all good things. For the others were made little baskets of white cardboard, laced with colored zephyr. Finally we hung on our little gifts, and went to sleep, anxious for the morning. We rose early, and carried our umbrella tree out to momma's room. Everybody was surprised. We thought the umbrella tree very appropriate; for we could not have anything else, and besides, it had rained all night.—Christian Register.

The day we butcher, we grind and season the meat to suit the taste, pack solid in flat one gallon crocks to within an inch of the top, put in the baker and bake as you would bread with a steady fire for about two hours says a correspondent of an exchange. Take out and set aside to cool with an inverted plate and a weight to keep it down until cold, then if it is not covered with lard that is fried out of it put enough fresh lard on to cover nicely. Paper up and set away in a cold place, and it will keep for a year just as fresh as the day it was made.

When wanted for use slice out and fry a nice brown, and you have a dish fit for the king. Our minister and wife took dinner with us yesterday, and they thought they never ate anything so good as our sausage. We usually bake all we make, as it is better for immediate use than when not baked.

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## OUR HOMES.

## THE FIRST CHRISTMAS.

Like small curled feathers, white and soft,  
The little clouds went by,  
Across the moon, and past the stars,  
And down the western sky.  
In upland pastures, where the grass  
With frosty dew was white,  
Like many clouds, the hills sleep lay  
That first blest Christmas night.

The shepherds slept in glistening faint,  
With white and blue smoke,  
On their fire's crackling flames  
The tender silence broke.  
Save when a young lamb raised his head,  
Or, when the wind blew,  
A nesting bird would softly stir,  
Where dusky olives grew!



## GRANGE NOTES.

Massachusetts State Grange.

At the 26th annual session of the Massachusetts State Grange at Brockton, Warren C. Jewett of Worcester was elected master and Geo. S. Ladd of Sturbridge, lecturer. The session was an exceedingly interesting one and there was a good attendance. The retiring State Master has said, in part, in his address:

"The normal increase is about six granges and 700 members per annum. The year just closed showed five new granges and four reorganizations and net gain in membership of 750. But while Massachusetts has increased from 9,000 to 13,000 in membership, New Hampshire has grown from 10,000 to 20,000. This is largely accounted for by the difference in methods pursued. More than one-half of the new granges secured to our neighbor have been instituted by one deputy, a paid organizer, who during the season of least activity on the farm, devotes his entire time to the work of extending the order, camping down in a town or village and remaining there until a house-to-house canvass secures the requisite number of names to warrant organization.

New England today sets the pace for grange work; our brothers and sisters from all over the country come to us again and again because they expect to get here, as nowhere else, the inspiration and enthusiasm which they so much need.

The latest plan of the great American drivers is to campaign a stable one year and then sell. By this method the horses change hands almost every year. A large number of '97 winners have been sold already, and many more will be at the big sales in February.

Boston's snow speedway will probably be in the Back Bay fens on Boylston street, that is, when the snow comes. It is great sport for the horse owners to spin up and down over the smooth snow, driving their fast trotters and brushing with their associates.

## Injuries to the Hipbones.

Quite a number of horses are injured in town and country every year in the prominent part of the hip termed by horsemen "the cap." Narrow stable doors were at one time charged as the cause of hip injuries, yet now that they are made pretty wide, horses get hopped just the same. When a horse is found to be thus injured there is always a mystery as to how it could have happened. The habit of some carters and stablemen on entering the stable is to turn several horses out together. They rush to the door and often one or two get jammed or knocked by another horse, so that they strike their hips against the doorpost. The hip may be injured by falling, but striking it against some hard object is the most prolific source of this trouble.

The most common injury is that of the "cap," and this in most cases is the anterior iliac spine, for there are two, an anterior and a posterior. When a horse falls or strikes his hip against a post the anterior spine may be chipped off. At other times the fall may produce a fracture of the shaft of the bone, i.e. the ilium. Doctors recognize seven classes of fracture of the bones of the pelvis, but out of that number only one is considered incurable, when the animal is a healthy one, and that one is that portion of the pelvis bones termed the acetabulum, from its likeness to a socket.

When lameness is present, and the effect of the injury has subsided, the horse will be often found to go sound and to do his work satisfactorily. The union of the fractured bone to its body in these cases is that of a "false joint," which is a connection of the ends by fibro-cartilaginous tissue and not by osseous or bony union as in most fractures. This arises from the muscles of that region drawing the piece chipped off downward and inward, so that the broken ends are separated, and, therefore, fibrous union starts up. The drawing downward and inward mentioned above will account for the flattened or sunken aspect of the part when viewed laterally.

In these cases nature performs the cure, and it may take three or four months, under favorable circumstances. Sometimes the injury is more severe and serious, little fragments of bone being chipped off, so that an abscess or necrosis of the bone follows. Such complications need the surgeon's assistance, but ordinary cases only need absolute rest in a well littered loose box, hot fomentation, for a few days, the use of compound camphorated soap liniment, and after a few weeks the application of a charge plaster will assist in restoring tone to the injured structures. The application of the charge and its preparation should be done by a veterinarian, so as to be sure of its best effect. In this way the horse may come out of his trouble sound and as useful as before. —Baltimore Sun.

Nothing equal to GERMAN PEAT MOSS for horse bedding. Healthy and economical and widely used. C. B. Barrett, importer, 45 No. 45 Market st., Boston, Mass.

## THE HORSE.

Good horses, draft and driving, are bringing a higher price than they have for years.

Many of the fast trotters of 1897, such as Que Allen, 2.09 3-4, Athanio, 2.10, Countess Eve, 2.09 1-4, and Bravado, 2.16 1-2, have been shipped to Europe, and will race there next season. The sporting people of the other side have become very fond of harness racing.

A model farm is that of Marcus Daly in Montana. It contains 16,000 acres and is the home of 600 fast horses. The stables and stalls are stoutly and warmly built, and every stall is lighted by electricity.

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## THE TIMES ARE OUT OF JOINT. REFLECT!!

## THE MASSES want to be HUMBUGGED!

So they buy inferior and dangerous soaps to procure WORTHLESS presents, or else the dealer recommends cheap soaps on account of extra profit.

**THE BEST IS THE CHEAPEST.**  
If you want the **BEST** and **PUREST** soap, **BUY** the famous **WELCOME** and the superior **WHITE CREST** Soaps.

**THEY HAVE NO EQUAL** and will not injure the finest fabric or skin.

Made by CURTIS DAVIS & CO. BOSTON. MASS.

one is secured it will be plainly seen in the friendship, the fraternity, and he should be retained in the office so long as his influence on the grange is not diminished. Other officers can be elected to the various positions, but the good lectures and the good secretary must be made for their places, and fortunate the grange that is rich in such material.

We must come face to face with the fact that the isolated rural home is not so safe that we can forget our civil duties. The murderer on the hillside, the outraged home in the valley cry to us to uphold, to maintain the strong arm of the law. None are more deeply interested, none are more helpless than are the farmers' homes in this state. Law is set aside, petty crimes are winked at, because it is so much easier to do nothing than to stand forth to enforce the law if only we are spared.

Let the grange discuss this question and arouse the people to its importance.

## Rhode Island State Grange.

Master J. A. Tillinghast in his annual address at the meeting of the Rhode Island State Grange, said, in part, "We are sometimes criticised as having a lack of issue, by people who do not thoroughly understand our organization. To this I would reply that we are not like a political party, dependent for prominence and life upon some one or more important measures and principles of government or policy which may be before the people for the time being, but we have ever before us as an issue the broad and never-ending question of education in its highest and noblest sense, the uplifting and ennobling of the toiling masses.

Rapidly are farming people taking their proper place in society, culture and citizenship which should and of right ought to be theirs, and this great change is largely due to the efforts of the grange. Have we a lack of issue? Every issue looking to the good of agriculture is our issue. It seems to me that our platform is so broad and far-reaching as to comprehend all that is conducive of good to agriculture and to mankind. While parties and sects are striving over differences of belief and opinion, we take the broad ground of "in essentials, unity; in non-essentials, liberty; in all things, charity."

We need the granges, and hundreds of farmers and their families need them also. If we have new granges, there must be active measures taken, and I recommend that you give this matter careful attention. What is needed is an earnest, active, organizer, who can and will interest, instruct and bring the people to understand, appreciate and join heart and hand with us in the methods suggested to meet the difficulty we differ widely.

It is not well for this organization to pose in the attitude of an obstructionist to anything that means real progress.

It is expected to be a progressive leader, but this does not mean advocating every hobby that some over-zealous theorist sees fit to project into the public arena."

In referring to the question of holding fairs, he said:—

"Is it worth while to hold an annual fair with all its attendant worry and anxiety and its ultimate dependence upon favorable weather?

Would not the cause of farmers' education be more surely advanced by more frequent institutes with accompanying exhibitions of farm products and manufactures?

Would a summer's encampment be advisable where manufacturers of farm implements and machinery might exhibit?

State Lecturer Stockwell gave many valuable suggestions in his annual address, saying, among other things:—

"The lecturer of the national grange is proposing a new departure in work to bring about uniformity in grange discussions in order that the various thought may be brought out and yet not to obtrude too greatly on the lecturer's hour when given to another subject. Twenty minutes can at the least be spared at each regular meeting to develop the subject given. I know not their intended drift or scope, but can see that the question 'Is the tariff on wool a benefit?' might be answered quite differently in various sections of the United States. Reciprocity with Canada or the Provinces would be discussed in New England and the great West, and these diverse views brought out in the lecturer's bulletin would give us the diverse relations from the great extent of our country, the diverse interests that must be considered in the fraternal spirit that our order enjoins. Certainly the idea of the lecturer, endorsed as it is by the national grange at its last session, should be given the trial of the coming year at least.

Care should be exercised in every subordinate grange to select the most active, the most discreet, the most persuasive of the members for lecturer to use a paradox, one who can lead without going to the front, one who can direct with an unfelt hand. When such an

for we notice that with much experience a person will become a pretty good cook. I have known women, however, with years of experience, who never could seem to cook things just right. A lady of my acquaintance, now about 85 years old, never could seem to cook anything to taste just right, although she had everything she could wish for to cook with. She perhaps mixed her ingredients all right, but would be sure to either take it out of the oven before it was quite done or perhaps she would wait until it was too much done. That showed her judgment was poor. I believe that a great deal of the art of cooking is in the baking of the food. A person must use good judgment in the heating of the oven, for no matter how nice the ingredients are, or how perfectly the preparation is mixed, if it is not baked properly, you will be money in if you buy your food all cooked.

Another reason is, I can have rolls from the dough for tea. If they are put into the pans in time to raise them about three hours slowly, before baking for tea, they will be almost as good as Parker house rolls. Put them in the pans very thin, and when they are baked, they will not be all inside, as that is very hurtful and goes into the stomach like cotton batting, and is about hard to digest. By putting in some milk and a little sugar, you can save kneading, which is very hard work.

In making graham bread I mix a batter of white flour at night with the yeast; in the morning I thicken it with graham, sweeten, and put in the bake pans, raise and bake. I find this way excellent in hot weather, as it never gets sour, and has a rich, nutty flavor. I use my bread flour to make all my cake, and always measure after it is sifted. Cake is much improved by sifting the flour twice, and of course requires thorough beating.

At a cooking lecture given by Mrs.

Rorer recently, she said that occasionally certain kinds of cake can be eaten without feeling that we are doing entirely wrong. Sunshine or sponge cake will not hurt any one, as it has no butter in it. It is cake rich in butter and filling that kills. She said she had made a business to study people, and she found that those who live in the rural districts eat the most cake. It was such people that filled the asylums. They were full of them. City people do not go there. She said there was nothing in cake to make brain or muscle, and according to her doctrine, I am afraid we grangers' brains cannot amount to much, for farmers are generally great cake eaters.

For my sugar and molasses cookies I use pastry flour, as they look and taste very much better, keeping brittle longer. I can make just as good cookies with cottontail as with butter, if they are mixed properly. I always cream it with the sugar, add the eggs, then the milk and flour. I like baking powder best for sugar cookies.

For my doughnuts I use hexagonal flour, as they swell more, are much lighter and never soak fat. My every day pastry I make after the ordinary rule of one quart of pastry flour and one cup of shortening, and a cup of cold water.

Frying is a process that is generally very imperfectly practised by cooks in general. When the fat for frying doughnuts, fishballs, oysters and potato

about it. Folks think, as a general rule, that meat is more nourishing than bread. It is a mistake; good made and good cooked bread contains one-third more nourishment than meat. Meat is more stimulating, I suppose, so therefore we need some of both. Good bread is indispensable in every household. I try to keep both kinds, white and grain. I think the best brand of flour is the cheapest, as the best flour makes the best bread and more loaves, as it generally swells the most.

I usually add a little milk and shortening in my white bread, as it keeps moist a great deal longer. I have better success when my bread is raised in the day time, as the fermentation can be stopped when re-quired.

Another reason is, I can have rolls from the dough for tea. If they are put into the pans in time to raise them about three hours slowly, before baking for tea, they will be almost as good as Parker house rolls. Put them in the pans very thin, and when they are baked, they will not be all inside, as that is very hurtful and goes into the stomach like cotton batting, and is about hard to digest. By putting in some

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toes is just right, it will brown a piece of bread in a few seconds. I think broiling is the right process for cooking steak or chops, as it makes them very tender and juicy; but on some farms where wood is burned in the kitchen, it is not convenient, but when it is fried, be sure and have the spider very hot. If it is not hot, it will boil and stew, and such cooking makes it tough and tasteless.

Charcoal is the very best thing I know of for broiling, but when I cannot get it I use corn cobs burned to a cinder, or apple-tree wood will answer as a substitute.

In roasting beef, I have the oven at a high temperature when the meat first goes in and gradually lower it as the pores close up. A Royal baker is a very nice thing, as anyone can cook a cheaper grade of meat in it and it will be just as tender as the best. A farmer should live upon vegetables in the summer and autumn seasons, as they are very healthy when well cooked and served. Vegetables should be kept cooking slowly after they once begin to cook, and when cooked the taste can be brought out by roasting them well.

A friend of mine is a strict vegetarian, never eating any meat, pies, cakes, butter, or eggs, living solely upon vegetables, grains and cereals. She is very healthy and strong and says that she works sixteen hours a day upon it. She is editor of a newspaper. She takes the horse and the ox as an example, as they are the strongest animals, and they live upon grain.

The water should be boiling hot before any of these cereals are put into it, cook it, as it will taste sticky if put in before.

I might go on and speak of many other different kinds of food, such as soups, salads, puddings and preparing leftovers. Be sure and always have your table full of good things to eat, if you have a man to suit, as they know the old saying is "That the way to a man's heart is through his stomach."

A well cooked meal is not after all everything; put as much care into the serving of it, as into the cooking, and it will then be perfect. Dairy dishes cost but little more thought and pains, than those which are cooked anyhow.

A few flowers and some fruit on the table are little things, yet in time they are educating and refining, and become as essential as bread and water. There are generally few cross words and ugly frowns, around a pleasant and attractive dining table.

RADWAY PILLS,  
Always Reliable, Purely Vegetable.

Perfectly tasteless, elegantly coated, regulate purity, cleanse and strengthen the body, and are **WATER-SOLUBLE** for the cure of all disorders of the Stomach, Bowels, Kidneys, Bladder, Nervous Diseases, Dizziness, Vertigo, Costiveness, Piles.

**Sick Headache,** **Female Complaints,** **Biliousness,**

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